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(54) **APPARATUSES, SYSTEMS, AND METHODS
FOR DIMMING DISPLAYS**

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ABSTRACT

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Systems and methods are used to dim an emissive display such as an organic light emitting diode (OLED) display. A dimming level setpoint signal is received. At least one dimming process is selected from four dimming processes based on a magnitude of the dimming level setpoint signal. A first dimming process selects a subrange of pixel illumination levels from a range of pixel illumination levels. A second dimming process adjusts a VCOM voltage for the pixel array. A third dimming process selects between rolling shutter and global shutter. A fourth dimming process selectively utilizes one or more subpixels from an emissive display pixel based on the magnitude of the dimming level setpoint signal. The selected dimming process or processes are applied to the emissive display, thereby dimming the display. The display can be an OLED display.

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